

REMARKS

Reconsideration and withdrawal of the rejections of the claimed invention is respectfully requested in view of the amendments, remarks and enclosures herewith, which place the application in condition for allowance.

I. STATUS OF CLAIMS AND FORMAL MATTERS

With the entry of the present amendment, claims 1-28 are pending in this application. Claim 1 has been amended to indicate that the soap is in solid form and has narrowed the scope of the film- or backbone-forming polymer, i.e. does not include gelatin, starch, cellulose and cellulose derivatives. Claim 14 has been amended to convert the “use” claims to a method-type claim. New claims 21-29 describe further embodiments of the invention. The applicants’ amendment after final of 20 May 2008 was NOT entered. No new matter has been added by this amendment.

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art cited in the Office Action, and that these claims were in full compliance with the requirements of 35 U.S.C. § 112. The amendments of the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. THE OBJECTION TO THE CLAIM HAVE BEEN OVERCOME

The objection to claim 1 have been overcome by the correction of the status identifiers.

III. THE 35 U.S.C. 102(b) REJECTION HAS BEEN OVERCOME

Claims 11 and 14 were rejected as allegedly being anticipated by GB 1,551,587 (“Colgate”). The applicants request reconsideration of this rejection for the following reasons.

NOTE: It is presumed that GB 1,551,587 was intended as the reference cited, NOT GB 1,551,578.

In order to establish anticipation, each of the elements of the applicants’ invention must be disclosed in the prior art reference and be disclosed in such a manner such that the identical invention is shown in as complete detail as is contained in the applicants’ claim. *See MPEP 2131*. While the applicants believe that the Colgate reference did not meet this requirement for

anticipation prior to amendment, Colgate clearly does not anticipate the applicants' invention in light of the present amendment.

The primary basis for maintaining the rejection in the final rejection was that the gelatin is being read as being a natural polymer. As both the present claims and the claims submitted in the after final response of 20 May 2008 did not include gelatin as a film- or backbone-forming polymer, this portion of the rejection has been overcome. The Advisory Action further explained that "Colgate-Palmolive does indeed inherently possess backbone forming film with the identical ingredients of instant claim such as methyl cellulose...starch...and propylene glycol." While the applicants disagree that inherency has been established, in order to advance prosecution, the applicants have amended the scope of the film- or backbone-forming polymer to exclude starch, cellulose and cellulose derivatives (the reference to propylene glycol in the Advisory Action was not well understood as the amendment to the claims presented never encompasses this as an element).

Therefore, Colgate does not teach all elements of the applicants claimed invention as amended and does not anticipate applicants' claims 11 and 14.^{1,2}

IV. THE 35 U.S.C. 103(a) REJECTION HAS BEEN OVERCOME

A. Claims 1-8, 10 and 15-20 were rejected as allegedly being obvious by GB 1,551,587 ("Colgate") in view of Mabley (US 2,356,158).

1. Background

When applying 35 U.S.C. 103, consideration of the applicants claims and the prior art references cited must be considered as a whole. *See MPEP 2141, section II.*

¹ In order to preserve the issue for appeal, the applicants also incorporate by reference the arguments from the amendment after final rejection dated 20 May 2008 as the office action did not establish inherency or establish that all of the elements in Colgate described the identical invention, i.e. finding the requisite elements is not sufficient to establish anticipation if the prior art reference does not show how to combine the elements to describe the applicants' invention.

² The applicants would also like to clarify two errors in the Office Action regarding the nature of propylene glycol and gelatin. First, **propylene glycol** does not inherently have backbone forming properties, i.e. propylene glycol is a faintly sweet, odorless and colorless clear liquid which is hygroscopic and miscible with water, acetone and chloroform and is not a film- or backbone-forming polymer. Second, the characterization of gelatin as a "cellulose derivative substance" is also in error, i.e. **gelatin** is a translucent, colorless, brittle, nearly tasteless solid substance extracted from the collagen inside animals' connective tissue and is an irreversibly hydrolyzed form of collagen and as such does NOT belong to the polysaccharide family of chemicals.

In order to establish *prima facie* obviousness, all claim limitations must be taught. See *MPEP 2143.03*. Although there is no set number of difference which must be accounted for or set number of references which must can be used to establish a case for obviousness, generally, the greater the number of differences, the lesser the indicia of obviousness. In addition, if relying upon an “obvious to try” rationale, the skilled artisan must be choosing from a finite number of identified, predictable solutions with a reasonable expectation of success.

These parameters for establishing obviousness have not been established for the reasons which follow.

2. When considered as a whole, Colgate does not teach several elements of the applicants’ claimed soap preparations

The Office Action correlates several sections of the Colgate reference to the applicants’ claim language. However, these written text of the Office Action was not taken from the prior art reference themselves. As such, the applicants present that these characterization of the teachings of Colgate are in error and fail to consider the teachings of Colgate as a whole.

- (a) “Colgate-Palmolive discloses a detergent bar (intended for conventional uses), which has a backbone forming polymer (film), air bubbles and it is solid; [Pg. 1, L. 5-25]” (page 4, lines 1-4 of final rejection)

The reference to a backbone forming polymer and air bubbles is nowhere to be found in this passage and consideration of the Colgate reference as a whole shows that gelatin is specific requirement for their detergent bar and that depending on the nature of the synthetic organic detergent, a cross-linking agent is necessary.

- (b) “Colgate-Palmolive does not explicitly teach this soap with the strip or sheet thickness about 0.5 cm...”³ (page 4, lines 5-6 of final rejection)

³ “...even though it discusses the approximate thickness of the soap; [Pg. 4, L. 15-18]. This passage from Colgate appears to have been misread, i.e. the applicants’ limitation is that the thickness does not exceed 5 *MILLimeters*. The passage from Colgate reads “The elastic detergent bars made are sufficiently elastic so that a bar 2 *cm [CENTimeters]* thick can be wetted and pressed between thumb and forefinger to a 1 *cm [CENTimeters]* thickness and will immediately (at most within five seconds) return to the 2 *cm [CENTimeters]* thickness or to at least within about 1 mm thereof, upon pressure release.” The reference to millimeters within Colgate only refers to range of

Mabley was referred to in the final rejection because of their teaching of a soap leaf which utilized methyl cellulose and this allegedly could be combined with Colgate because they were in analogous arts. With the applicants' amendment to claim 1 to exclude cellulose and cellulose derivatives, Mabley's methylcellulose soap leaves combined with Colgate would not suggest the formation of sheets and strips as in the applicants' soap preparation wherein the film- or backbone-forming polymer is not cellulose or cellulose derivatives.

Even without the amendment, the Mabley reference was unsuitable for combination with Colgate as the former was directed toward a soap leaf containing methylcellulose whereas the latter was directed to a soap bar containing gelatin and which sought to achieve "squeezeability" (see page 1, lines 7-11 of Colgate), i.e. modifying a reference cannot render that reference unsuitable for its intended use. Here, forming soap leaves with methylcellulose defeats the purpose of Colgate's invention which required thicker soap bars to achieve their squeezeability.

Moreover, the Mabley reference was not analogous to Colgate in that Mabley's soap leaves lacked the air bubbles of Colgate, i.e. one of ordinary skill in the art would have expected that the addition of methylcellulose to form the leaf (had there been proper motivation to apply this teaching to Colgate) to form leaf without air bubbles which also defeats the purpose of Colgate's invention to achieve a thicker soap bar with squeezability.

Lastly, Mabley is also non-analogous to Colgate in that the former desire rapid dissolution of their soap leaves (although it is silent with regard to the rate of dissolution) whereas Colgate makes no such reference to such dissolution, in fact the squeezeability directs one of ordinary skill in the art to the formation of soap bars with less rapid dissolution.

- (c) "synthetic polymers such as polyvinyl alcohol; [p. 1, L. 10-25]..." (page 4, lines 19-20 of final rejection)

thickness when the pressure is released, i.e. 19 – 21 mm or 1.9 – 2.1 cm. This is well in excess of what is claimed by the applicants.

This statement was not understood as Colgate does not teach or suggest synthetic polymers (was gelatin believed to be a synthetic polymer? – see Footnote 2 above) nor polyvinyl alcohol (was the “lower pluralhydric alcohol” believed to encompass polyvinyl alcohol? – this is factually incorrect)

- (d) “Colgate-Palmolive teaches an expandability of 0 – 100%; [Pg. 4, L. 15-18]

Colgate makes no such reference to an *expandability* range of 0 – 100% (see Footnote 3 above from the corresponding text from Colgate). Colgate is referring to the squeezeability of their soap bar, i.e. the bar can be *compressed* from 2 cm to 1 cm and upon the release of the pressure, the bar will recover to close to its original 2 cm size.

3. Colgate and Mabley do not represent a finite number of choices for the applicants’ combination upon which one of ordinary skill in the art would find the applicants’ invention to be obvious

The applicants’ claimed invention is directed toward a soap preparation which comprises of several element which must be present *simultaneously*: it must (1) be a solid; (2) in the form of sheets or strips; (3) comprise of a soap, (4) at least one film- or backbone-forming polymer selected from the group consisting of polyamides, polyacrylates, polyamino acids, polyvinyl acetate, polyvinyl alcohol, polyethylene glycols, polyvinylpyrrolidones, pullulan, alginic acid and mixtures thereof, and (5) air bubbles; and (6) wherein the thickness of said solid soap preparation does not exceed 5 mm.

Establishing obviousness is not reduced to an evaluation of whether each individual element is obvious in and of themselves, but whether when considering the prior art references as a whole, the simultaneous combination of elements was obvious. It has previously been held that “[i]t is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.” See *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965))

The Office Action acknowledged several missing elements or elements which were not explicitly taught and the applicants' above explained above why Colgate lacked additional elements of the applicants' claimed invention:

- (i) "which has a backbone forming polymer (film), air bubbles and it is a solid; [Pg. 1, L. 5-25]" (not taught)
- (ii) "Colgate-Palmolive does not explicitly teach this soap with the strip or sheet thickness about 0.5 cm..."
- (iii) "synthetic polymers such as polyvinyl alcohol; [p. 1, L. 10-25]..." (not taught)
- (iv) "Colgate-Palmolive teaches an expandability of 0 – 100%; [Pg. 4, L. 15-18]" (not taught)
- (v) "Colgate-Palmolive does not disclose the percentage of air bubbles with respect to that of the soap" (page 4, last two lines of final rejection)
- (vi) "Colgate Palmolive does not teach the time of dissolution of soap in water" (page 5, line 10 of the final rejection)

Even if it were permissible to pick and choose or presume the presence of just among these elements, one of ordinary skill in the art would be presented with an infinite number of possible permutations for an invention represented by the combination of Colgate and Mabley especially when the modification of Colgate by Mabley would produce a soap which destroys the intended use of the soap by Colgate.

It is not permissible to pick and choose selected elements to the exclusion of what the references teach as a whole. In the present case, there is no reason why one of ordinary skill in the art would have been directed to these limited range of elements when both Colgate and Mabley make reference to numerous other elements which make up their own soap products and are not part of the other reference's soap products or the applicants' soap preparation. One of ordinary skill in the art when considering these additional choices would be confronted with a staggering number of permutations and would not find the specific combination of elements for the applicants' soap preparation to have been obvious.

As noted above, a holding of *prima facie* obviousness requires that all limitations be taught and this extends to the holding of obviousness for the applicants' dependent claims. With respect to the dependent claims, Colgate and Mabley are even further removed from establishing obviousness of the applicants' claimed invention. By way of illustration, claim 20 (which is

dependent upon claim 5) adds the additional limitations that (7) the film- or backbone-forming polymer is polyvinylalcohol; (8) a density between 0.7 and 0.1 g/cm³; (9) an expandability between 2 and 10%; (10) a thickness between 100 µm and 2 mm; and (11) has a dissolution time in an aqueous medium of less than 5 seconds.

For these reasons, the combination of Colgate and Mabley do not render the applicants' claimed soap preparation to be obvious.

B. Claims 12 and 13 were rejected as allegedly being obvious by GB 1,551,587

(“Colgate”). The applicants request reconsideration of this rejection for the following reasons.

As claims 12 and 13 are dependent upon claim 11, the applicants' arguments with respect to claim 11 are also applicable here. As all claim limitations have not been taught or suggested by Colgate, claims 12 and 13 are also not obvious over the Colgate reference.

In order to preserve the issue for appeal, the applicants further note that with regard to claim 12, optimization of variables may be permitted (see MPEP 2144.05, section IIA), *but* only if the particular parameter is first recognized as a result-effective variable (see MPEP 2144.05, section IIB). There is no support from Colgate or from teachings within the art which support the conclusory statement that it would have been obvious to a person of ordinary skill in the art to optimize the size and density of the soap by additional compression.

CONCLUSION

In view of the remarks and amendments herewith, the application is believed to be in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date, and, the Examiner is invited to telephonically contact the undersigned to advance prosecution.

Respectfully submitted,
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